OPERATORS MANUAL

BEDIENUNGSHANDBUCH
MANUAL DEL OPERADOR
MANUEL D'INSTRUCTIONS

PS-850i

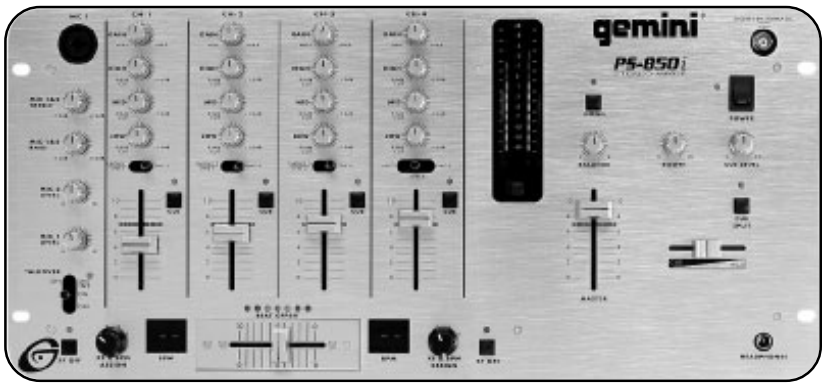
PROFESSIONAL STEREO PREAMP MIXER

Professionneller Stereo Vorverstärkermischpult

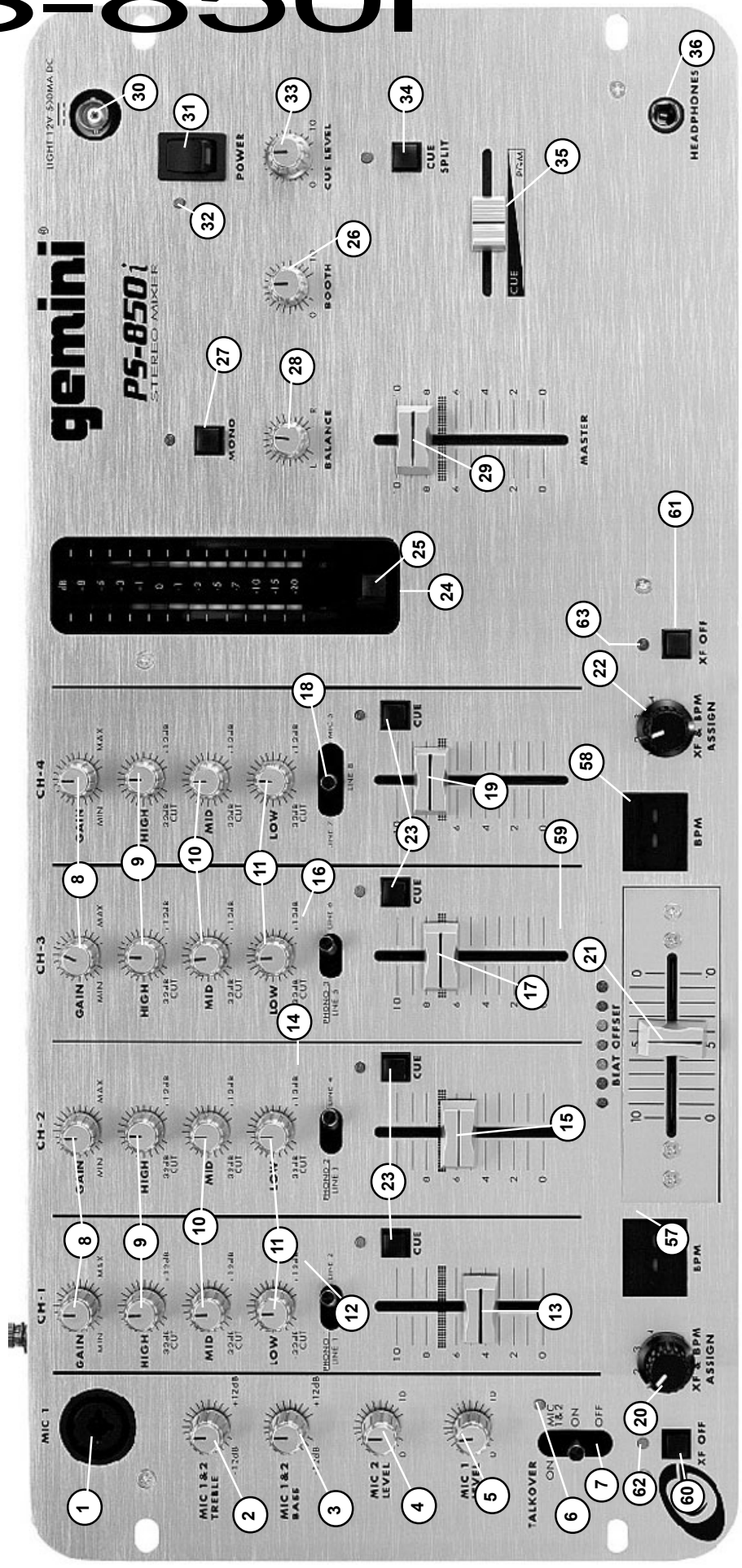
Mezclador-preamplificador estereofónico para el profesional

Mélangeur-préamplificateur stéréophonique pour le professionnel

Miscelatore-preamplificatore stereofonico per il professionale



PS-850i


gemini
PS-850i
STEREO MIXER
POWER
CUE LEVEL
CUE SPLIT
BOOTH
MONO
BALANCE
MASTER
HEADPHONES
XF OFF
XF & BPM ASSIGN
BPM
BEAT OFFSET
CH-1
CH-2
CH-3
CH-4
GAIN
HIGH
MID
LOW
CUE
MIC 1
MIC 1&2 TREBLE
MIC 1&2 BASS
MIC 2 LEVEL
MIC 1 LEVEL
TALKOVER
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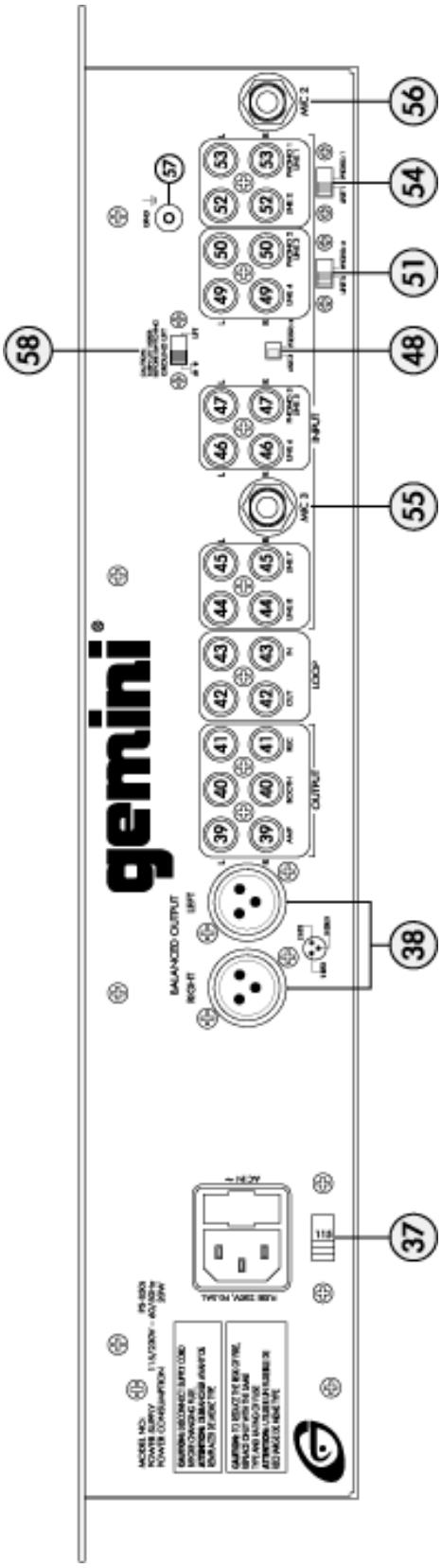


RAIL GLIDE FADER

PS-850i

INTRODUCTION

Congratulations on your purchase of the **gemini PS-850i Stereo PreAmp Mixer**. This-state-of-the-art mixer is backed by a three year warranty, excluding crossfader and channel slides. Prior to plugging in, we suggest you carefully read these instructions.

FEATURES

- 4 Stereo Channels
- State-of-the-Art Cue Section
- 3 Phono/Line Convertible, 5 Line, and 3 Mic Inputs
- BPM displays and beat offset indicators.
- Cut Feature for Low, Mid and High for Each Channel
- Gain, High, Mid and Low Tone Controls for Each Channel
- Talkover
- Loop
- Balanced and Unbalanced Master Outputs
- Booth and Record Outputs
- Dual Mode Display

CAUTIONS

1. Read all operating instructions before using this equipment.
2. To reduce the risk of electrical shock, do not open the unit. THERE ARE NO USER REPLACEABLE PARTS INSIDE. Please refer all unit servicing to a qualified gemini Sound Products service technician.

In the USA: If you experience problems with this unit, please call 1 (732) 969-9000 for Gemini Customer Service.

Do not attempt to return this equipment to your dealer.

3. Do not expose this unit to direct sunlight or to heat sources such as a radiator or stove.
4. This unit should be cleaned with a damp cloth ONLY. Avoid solvents and other cleaning detergents. Do not use spray cleaner or lubricant on controls or switches.
5. When moving this equipment, it should be placed in its original carton and packaging to reduce the risk of damage during transit.
6. DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

CONNECTIONS

1. Before plugging in the power cord, make sure that the **VOLTAGE SELECTOR (37)** switch is set to the correct voltage.

NOTE: This product is double insulated and is not intended to be grounded.

2. Make sure that the **POWER (31)** switch is in the OFF position. The **POWER LED (32)** will be OFF.
3. The **PS-850i** is supplied with four (4) sets of output jacks.
   - The **XLR BALANCED OUTPUT (38)** jacks are used to connect to your main amplifier using standard XLR cables. We recommend using balanced amp outputs if the cables to your amp are 10 feet or more. **XLR BALANCED OUTPUTS** have three separate conductors, two of which are signal (positive and negative) and one shield (ground). Pin 1 is ground (shield). Pin 2 is signal hot (positive). Pin 3 is signal cold (negative).
   - The **MAIN OUTPUT (39)** (RCA type) jacks are unbalanced and used to connect to your main amplifier.
   - The **REC OUTPUT (41)** (RCA type) jacks can be used to connect the mixer to the record input of your recorder enabling you to record your mix.
   - The **BOOTH OUTPUT (40)** (RCA type) jacks allow you to hook up an additional amplifier.
4. The **MIC 1 (1)** input (found on the front panel) accepts XLR &1/4" connectors. The **MIC 2 (56)** input and the **MIC 3 (55)** input (found on the rear panel) accept 1/4" connectors. All accept balanced and unbalanced microphones.
5. On the rear panel are three (3) stereo **PHONO/LINE (47, 50, 53)** inputs and 5 stereo **LINE (44, 45, 46, 49, 52)** inputs.
   - The **PHONO/LINE SWITCH (48)** enables you to set the **(47)** input to Phono or Line.
   - The **PHONO/LINE SWITCH (51)** enables you to set the **(50)** input to Phono or Line.
   - The **PHONO/LINE SWITCH (54)** enables you to set the **(53)** input to Phono or Line.

♦ **The phono inputs will accept only turntables with a magnetic cartridge.**

6. A turntable **GROUND SCREW (57)** is located on the rear panel.
7. Headphones can be plugged into the front panel mounted **HEADPHONE JACK (36)** .
8. The **PS-850i** features a front panel **BNC LIGHT JACK (30)** . This jack is for a gooseneck lamp such as the **Gemini GNL-700**.
9. There are **LOOP INPUTS (43)** and **LOOP OUTPUTS (42)** located on the rear panel. If you are using an outboard signal processor, you can use the **LOOP OUTPUTS (42)** to send the signal to the device and the **LOOP INPUTS (43)** to bring the signal back in to the mixer. The unit comes with jumpers to be used with the loop inputs and outputs. Keep the jumpers in the unit if you are not using the loop to prevent interruptions in your music program.

THE GROUND LIFT SWITCH

Depending on your system configuration, applying the ground sometimes creates a quieter signal path. Sometimes “lifting” the ground eliminates loops and hum to create a quieter signal path.

1. Listen to the system with the unit ON, without music, and with the ground “applied.” **GROUND LIFT SWITCH (58)** should be to the left.
2. **Turn power OFF before moving the GROUND LIFT SWITCH.**
3. Now, “lift” the ground by moving the **GROUND LIFT SWITCH** to the right. Turn the power back ON and listen to determine which position provides a signal free of background noise and hum.

Note: Keep GROUND LIFT in the ground “applied” or left position if noise level remains the same in either position.

CAUTION: DO NOT TERMINATE THE AC GROUND ON THE POWER CABLE. TERMINATION OF THE AC GROUND CAN BE HAZARDOUS.

OPERATION

1. **POWER ON:** Once you have made all the equipment connections to your mixer, press the **POWER SWITCH (31)**. The power will turn on and the **POWER LED (32)** will “glow” RED.
2. **CHANNEL 1:** The **GAIN (8)**, **HIGH (9)**, **MID (10)**, and **LOW (11)** controls allow you to fully adjust the selected source. Switch **(12)** allows you to select the **PHONO 1/LINE 1 (53)** or the **LINE 2 (52)** input. **CHANNEL SLIDE (13)** controls the input level of this channel.
3. **CHANNEL 2:** The **GAIN (8)**, **HIGH (9)**, **MID (10)**, and **LOW (11)** controls allow you to fully adjust the selected source. Switch **(14)** allows you to select the **PHONO 2/LINE 3 (50)** or the **LINE 4 (49)** input. **CHANNEL SLIDE (15)** controls the input level of this channel.
4. **CHANNEL 3:** The **GAIN (8)**, **HIGH (9)**, **MID (10)**, and **LOW (11)**

controls allow you to fully adjust the selected source. Switch **(16)** allows you to select the **PHONO 3/LINE 5 (47)** or the **LINE 6 (46)** input. **CHANNEL SLIDE (17)** controls the input level of this channel.

5. **CHANNEL 4:** The **GAIN (8)**, **HIGH (9)**, **MID (10)**, and **LOW (11)** controls allow you to fully adjust the selected source. Switch **(18)** allows you to select the **LINE 7 (45), LINE 8 (44)** or the **MIC 3 (55)** input. **CHANNEL SLIDE (19)** controls the input level of this channel.

   PLEASE NOTE: There is Low, Mid and High equalization for each channel with an extremely wide range of adjustment.

   SUGGESTION: You can use the Cut Features on each channel to remove Low, Mid and/or High range to create special effects.

The Crossfader in your unit is removable, and should the need arise, can easily be replaced by following these instructions. Note: Gemini replacement Crossfaders are available in three varieties: the **RG-45 PRO (RAIL GLIDE™) Dual-Rail Crossfader**; the **RF-45**, which has a 45mm travel from side-to-side; and the **PSF-45**, which features a special "curve" designed for scratch mixing.

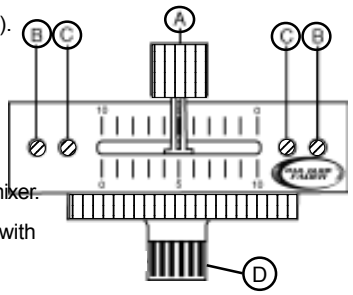
1. Unscrew the outside FADER PLATE SCREWS (B).

- Do not touch INSIDE SCREWS (C).

2. Carefully remove old Crossfader and unplug CABLE (D).

3. Plug new Crossfader into CABLE (D) and place back into mixer.

4. Screw Crossfader to mixer with FADER PLATE SCREWS (B).



✦ Your Gemini mixer comes with an **RG-45 PRO (RAIL GLIDE™) DUAL-RAIL CROSSFADER.** Rail Glide™ Crossfaders have internal dual stainless steel rails that allow the slider to ride smoothly and accurately from end to end.

6. **CROSSFADER SECTION:** The **CROSSFADER (21)** allows the mixing of one source into another. The **PS-850i** features an assignable crossfader. The **ASSIGN (20, 22)** switches allow you to select which channel will play through each side of the crossfader. The **ASSIGN (20)** switch has 4 settings (1, 2, 3 or 4) and allows you to select channel 1, 2, 3 or 4 to play through the left side of the crossfader. The **ASSIGN (22)** switch has 4 settings (1, 2, 3 or 4) and allows you to select channel 1, 2, 3 or 4 to play through the right side of the crossfader. There are two OFF (60, 61) buttons for the crossfader. When the **OFF** (60) button is pressed, the left side of the crossfader will be inactive and the **OFF LED** (62) will light. When the **OFF** (61) button is pressed, the right side of the crossfader will be inactive and the **OFF LED** (63) will light. Using the **OFF** button, be sure to deactivate the crossfader before changing the **ASSIGN** setting. This will avoid any click or popping sound in your signal while you are changing the assign setting.

7. **LOOP:** Removing the jumpers from the **LOOP OUTPUT (42)** and **INPUT (43)** jacks will activate the loop. Any device connected to the **LOOP OUTPUT (42)** and **INPUT (43)** jacks will be inserted into the signal path.

HINT: **BOOTH OUTPUT (40)** is used by some DJs to run monitor speakers in the DJ Booth. You can also use it as a second ZONE or AMP output.

NOTE: The **RECORD OUT (41)** has no level control. The level is set by the channel slides and the gain controls of the selected channel. Tonal qualities are set by the LOW, MID and HIGH controls of that same channel.

8. **OUTPUT CONTROL:** The level of the **AMP OUT (38, 39)** is controlled by the **MASTER (29)** slide and **BALANCE (28)** control. Activating the **MONO (27)** button (the mono LED will light) makes the overall output mono. The **BOOTH (26)** control adjusts the level of the **BOOTH OUTPUT (40).**

9. **TALKOVER:** The purpose of the talkover is to allow the program playing to be muted so that the mic may be heard above the music. The **MIC/TALKOVER SWITCH (7)** controls MIC 1 and MIC 2 and has three settings.

   - When **MIC/TALKOVER (7)** is in the BOTTOM position, MIC and TALKOVER are OFF.
   - When **MIC/TALKOVER (7)** is in the CENTER position, MIC is ON. **MIC INDICATOR (6)** glows. TALKOVER is OFF.
   - When **MIC/TALKOVER SWITCH (7)** is in the TOP position, MIC and TALKOVER are ON and the volume of all sources *except* MIC input is lowered by 16 dB. **MIC 1 LEVEL (5)** controls the level of MIC 1. **MIC 2 LEVEL (4)** controls the level of MIC 2.

10. **CUE:** By connecting a set of headphones to the **HEADPHONE JACK (36)**, you can monitor any or all of the channels. Press the **CUE ASSIGN (23)** buttons for channels 1 - 4 to select the channel or channels to be monitored and their respective LED indicators will glow.

    Use **CUE LEVEL (33)** control to adjust cue volume without affecting the overall mix. By moving the **CUE PGM PAN (35)** control to the left you will be able to monitor the assigned cue signal. Moving the control to the right will monitor the PGM (program) output.

    Use the **CUE SPLIT (34)** button to split the signals from cue and program so that cue will be heard in one earphone and program in the other.

11. **DISPLAY:** The peak hold, dual function **DISPLAY (24)** indicates either the **MASTER (38, 39)** output left and right levels OR the selected cue and program (premaster output) levels. You can choose the option you want by pressing the **DISPLAY (25)** button.

NOTE: When the **DISPLAY** is in the cue/program mode you can increase or decrease the signal to match the other channel's signal simply by adjusting **GAIN (8)**.

12. The **TREBLE (2)** and **BASS (3)** controls allow you to adjust the tone of MIC 1 and MIC 2.

13. **BPM DISPLAY:** There are **BPM DISPLAYS** (57, 58) for the two channels assigned to each side of the CROSSFADER (21). They update approximately every 2.5 seconds and digitally display the Beats Per Minute allowing you to match the beats visually. BPM **DISPLAY** (57) reflects the Beats Per Minute of the channel assigned to the left side of the **CROSSFADER**, and **BPM DISPLAY** (58) reflects the Beats Per Minute of the channel assigned to right the side of the **CROSSFADER**.

    NOTE: A [- -] reading will appear on the BPM DISPLAY if the track has unclear beats. The [- -] reading will also appear if there is no signal present.

14. The **BEAT OFFSET INDICATORS** (59) light when the tracks of the two channels assigned to the crossfader are within 11 BPMs of each other and display how aligned the beats of the two channels are. When the YELLOW LEDs light, the beats are almost aligned. When the GREEN LED lights, the beats are aligned perfectly.

NOTE: If the difference between the two channel's beats exceed 11 BPM, the BEAT OFFSET INDICATORS will not light.

SUGGESTION: You can use the BPM DISPLAYS to determine which tracks have similar or the same Beats Per Minute. When mixing two

tracks with similar Beats Per Minute, you can use one source's pitch control to align the Beats Per Minute with the other source's BPM. The BPM DISPLAY and the BEAT OFFSET INDICATORS update every 2.5 seconds and will reflect the change in BPM and indicate when the beats are aligned.

NOTE: Beat mixing is a skill that requires practice. Not every track has a strong beat, and beat mixing works best with tracks with tracks with clear and strong beats.

SPECIFICATIONS

INPUTS:

Phono @ 1kHz.....2mV 47 kΩ

Line.....100 mV 10 kΩ

MIC 1 , MIC 2 & MIC 3.....1.5mV 2 KΩ Balanced

OUTPUTS:

Main/Aux.....0 dB 1V 400 kΩ

Max.....20V Peak-to-Peak

Rec.....225mV 5 kΩ

GENERAL:

Low (Channels 1-4).....+ 12dB/- 32 dB

Mid (Channels 1-4).....+ 12dB/- 32 dB

High (Channels 1-4).....+ 12dB/- 32 dB

Gain (Channels 1-4).....0 to -20dB

Bass (MIC1 , MIC2).....± 12dB

Treble (MIC1 , MIC2).....± 12dB

Frequency Response.....20Hz - 20kHz +/- 2dB

Distortion.....less than 0.02%

S/N Ratio.....better than 80dB

Talkover Attenuation.....16dB

Power Source.....115/230V 50/60Hz 20W

Dimensions.....19"W x 4"H x 9"D

Weight.....10 lbs

gemini®

RAIL GLIDE FADER